

App. No. 10/717828

Office Action Dated April 19, 2005

Amendments to the Specification:

Please replace paragraph [0004] beginning at page 1, line 22 with the following amended paragraph:

In figure 1, a bearing unit comprises an outer race 1, an inner race 2,3 formed by two axially adjacent half-races, and two sets of bearing balls 3 4,5. In a radial plane located between the two sets of balls 3 4,5 there are several outer radial ducts 6 13 passing through the bearing outer race 1, and several inner radial passages 7 14 formed through the bearing inner race 2,3.

Please replace paragraph [0005] beginning at page 1, line 30 with the following amended paragraph:

Mounted in the annular space defined by the outer race 1, the inner race 2,3 and the two sets of balls 3 4,5 is a sealing device 8 29 that allows pressurized air to pass through the outer 6 13 and inner 7 14 ducts of the bearing. The sealing device is constituted by two annular sealing members 9 15,16 facing one another axially and disposed symmetrically with respect to the radial plane in which the ducts 6 13 and 7 14 of the bearing unit lie. Each sealing element 9 15,16 generally comprises a metal reinforcement on which there is molded a flexible material, such as an elastomeric material. The metal reinforcement is formed by a sheet metal bent so as to have a portion 10 28 that is axially fixed to the outer race 1 of the bearing and a radial portion for stiffening the flexible material molded thereon that extends to form a flexible wall 11 30. The free end of the wall 11 30 is constituted by a lip 12 27, preferably of a low friction material such as Teflon™, that slidably contacts a contact surface 13 26 formed by the inner race 2,3 of the bearing. The two sealing elements 9 15,16 so arranged delimit an intermediate annular chamber 14 17. Air pressurized by a pressurized air source mounted on board of the vehicle, which may be part of an automatic system or a system controlled by the driver, passes through special ducts obtained in the suspension standard of the wheel where the bearing is housed, passes through the outer ducts 6 13, in the intermediate annular chamber 14 17, through the inner ducts 7 14, and from here is conveyed through other ducts to the wheel rim and finally the tire.